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ABSTRACT

Both evaluators and storytellers pull together the events they hear and see; they create unified, coherent entities out of the parts they gather. This guide considers two levels at which the understanding of the nature and methods of narrative writing, or storytelling, can be of use to the evaluator. The highest level is to use the notion of narrative as an overall framework for an evaluation which consists of content and existents. The events are composed of action and happenings, and the existents of characters and settings. The second level considers the use of specific narrative techniques, such as vignette, dialogue, quotes, and portrayal over time. Simple guidelines outlining the qualities of effective writing--clarity, force and flavor--are given. (JAZ)

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EVALUATION GUIDES

Guide Number 20

NARRATIVE AND ITS USE IN EVALUATION

Mark St. John

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The use of narrative as an evaluation method is discussed, including

- Introduction
- Narrative
- Part I: Using Narrative as an Evaluation Framework
- Evaluation as story, An Example
- Part II: The Techniques of the Storyteller
- References

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God created man because He loves stories
Wiesel

INTRODUCTION

Stories existed long before evaluation reports. Even before the epic poems of Homer, stories were used to capture experiences; to convey what things were like; to portray what it felt like to be there; and to illustrate the lessons of life one needed to learn.

Evaluators are storytellers--just as storytellers are evaluators. To evaluate a program is to tell a story about the program. Both evaluators and storytellers pull together the events they hear and see; they create unified, coherent entities out of the parts they gather. Indeed, they both create stories, and they put them in the form of narrative.

This guide describes the nature of narrative and the structure of stories. It suggests ways that evaluators might profit from a closer understanding of the art of storytelling.

Following are brief listings of (a) the characteristics of narrative, and (b) evaluative uses of narrative techniques.

The characteristics of narrative include:

- Narrative provides rich descriptions of program activities, events, characters, and settings.
- Narrative allows the reader to experience what it is like to be part of a program.
- Narrative, by providing a deep understanding of one situation, allows the reader to generalize to other situations.

The evaluator will find the techniques of narrative most useful when the following conditions exist:

- There is an interesting (and generalizable) story to be told.
- A coherent framework is needed to guide the focus, order, and scope of an open-ended study.
- A final evaluation report needs to include a clear and insightful description of the program's activities and nature.

The Narrative Quality of Experience

> There is not one human being who, above a certain elementary level of consciousness, does not exhaust himself in trying to find formulas or attitudes that will give his existence the unity it lacks.
>
> Camus

Narrative is important because our deepest understanding of our own experience is in the form of narrative. We understand ourselves and our world narratively--that is, through language and through our own descriptive stories. By talking to ourselves (and others) we create the stories of our own lives, and of the world we live in. The content of our individual lives varies greatly, but the form we use to understand and express ourselves--narrative--is the same for all of us. Because we live in narrative, it is difficult for us to see its pervasiveness.

Narrative and time are intimately bound together. By understanding our experience narratively, we connect the ongoing series of events in our lives, and we create ourselves as entities in time. We give ourselves an identity, with a sense of character and style, with the security of a past, and the hope of a future.

The function of narrative is to create unity and wholeness out of an otherwise chaotic flow of actions, events, and experiences. To understand how narrative works, it is useful to consider an analogy with the unifying notion of "style."

Style is an abstract notion that refers to a sense of wholeness, uniqueness, and unity in a person's actions. We can recognize someone by their style of walking or dressing. We can also distinguish Bach from Beethoven, not by any one note, but by the overall style of the music. Style ties together in a composite picture, a multitude of discrete actions and/or features. Just as musical style unifies the notes in a musical score, narrative is capable of joining discrete and independent events together into a coherent and meaningful whole. Traditionally, we call these "wholes" stories.

The Experiential Quality of Narrative

If our experience is fundamentally understood through narrative, then the fundamental quality of narrative is that it is experiential. Narrative gives us an almost direct means of transmitting experience.

Experience is always specific. One does not have general (or average) experiences. Similarly, narrative describes the specific. Stories are about particular people and actual situations; they don't describe average people or theoretical situations. To see this distinction more graphically, compare the two following newspaper articles about the conditions in India following the assassination of Indira Ghandi. Both articles are taken from the same issue of the San Francisco Chronicle.

Article # 1

Hundreds of Hindu rioters attacked New Delhi-bound trains yesterday, beating and burning to death dozens of Sikh passengers in the aftermath of Indira Ghandi's assassination. The latest attacks occurred amid reports that the death toll had climbed to 1000 in three days of rioting, with at least 500 deaths in New Delhi alone. United News of India reported that at least 55 people were killed on trains bound for the capital.

Article #2

The Rajdhani express, India's premier train, a 17 hour, 1000 mile run from Bombay to New Delhi, arrived at its second stop, Ratlam, on schedule at 1 a.m. yesterday. Passengers were roused by an announcement warning them there was "trouble" ahead, and they could disembark if they wished. Few did.

On the outskirts of New Delhi the train stopped again at a small station, Tuthlakabad. A voice announced that passengers should lock all doors and keep all windows curtained. We did not know why. Although we knew of the assassination of Ghandi, allegedly by Sikh bodyguards, we had only a vague indication of the subsequent Hindu attacks on members of the Sikh sect.

Three minues later we knew.

About 100 people, all young men, began hammering on the doors of the halted train, pounding at the compartment door windows with iron rods and stones. There was a crunching sound, then a cheer. The window had broken.

Four youths, yielding sticks, came into our car. I was sitting near the door, and one looked at me, wondering about my beard.

"Come out, all the Sikhs in here!" one shouted.

"There are none here," a passenger said softly. "There are none here," repeated one of the youths, and they turned to go.

Just then a few of their companions entered the car, some with iron pipes, others with long black rubber pipes.

The brigade marched down the aisles between the seats. Suddenly, there was a shout. "Here! Here! Come here! We got one."

As the passengers slowly got to their feet and turned to look, there was a sound of scuffling and a series of sickening thuds. For a minute or so everything was hidden from my view. Then the crowd in the aisle parted.

Two teenage girls, traveling with their mother, screamed hysterically. The other passengers looked on silently. One of the marauding youths was pulling a Sikh man by his long hair. Three other attackers followed, hitting the Sikh with their rods. He held onto the seats, refusing to move. His shirt became splattered with blood.

A girl screamed and one of the mob looked at her soothingly and said "Don't worry, sister. We will not do anything to you. We are after them. They are killing our womenfolk. We will not spare them."

Finally, one of the youths broke the Sikh's hold on the seat. They hauled the beaten, deeply wounded man outside. The crowd collected around him, and they continued their relentless onslaught. We could only watch from the windows. No one got down on the platform.

A few moments later, an acrid smoke floated into the car through the broken window. The crowds parted, and we saw the flames leap up from the body of the Sikh, a man who just fifteen minutes before had been riding peacefully with us from Bombay . . .

The first description gives an overview of the situation in the country. It describes the outcome, not the process, of the riots. The second description tells the story of just one of the 550 killings, but it puts the reader right on the train--it makes very real for us an experience which we would rather keep remote.

Narrative is powerful just because it is so close to the way we understand experience. The narrative description of the train ride allows the reader to become immersed in the story, and through this incident he/she can begin to understand the nature of all the incidents. In the first article, the generalizations and conclusions are made for the reader; in the second article, the reader is left to find his/her own. This kind of generalization--finding all the world in a grain of sand--comes from depth rather than breadth of exploration, and is sometimes called naturalistic generalization. It is done by, and not for, the reader. It is experience that suggests conclusions, not the other way around.

Narrative and Evaluation

This guide considers two levels at which the understanding of the nature and methods of narrative writing, of storytelling, can be of use to the evaluator. The highest level is to use the notion of narrative as an overall framework for an evaluation. The second level, considered in Part II, is more detailed and considers the use of specific narrative techniques.

PART I: USING NARRATIVE AS AN EVALUATION FRAMEWORK

The Structure of Narrative

Figure 1 shows the basic components of a story. The story components are shown in capital letters; the evaluation analogs are shown below in parentheses.

The narrative is the story in its entirety. For the evaluator, the notion of the narrative is much the same as it is for the storyteller--it is the tale to be told. There are two aspects of any story: the content (what is to be related), and the discourse expression (the way it is to be related).

The discourse-expression refers to the media used to tell the story, including books, radio, television, or an old-fashioned storytelling session. In the evaluation analogy, the means of discourse would include the traditional written report, oral briefings, committee hearings, or any other way in which the story of the program could be told. Rather than mechanically write final reports, the evaluator can gain flexibility by thinking of himself/herself as a storyteller and adopting the most effective means to tell the evaluation story. The film "High School" is a classic example of an evaluation powerfully expressed in an innovative media.

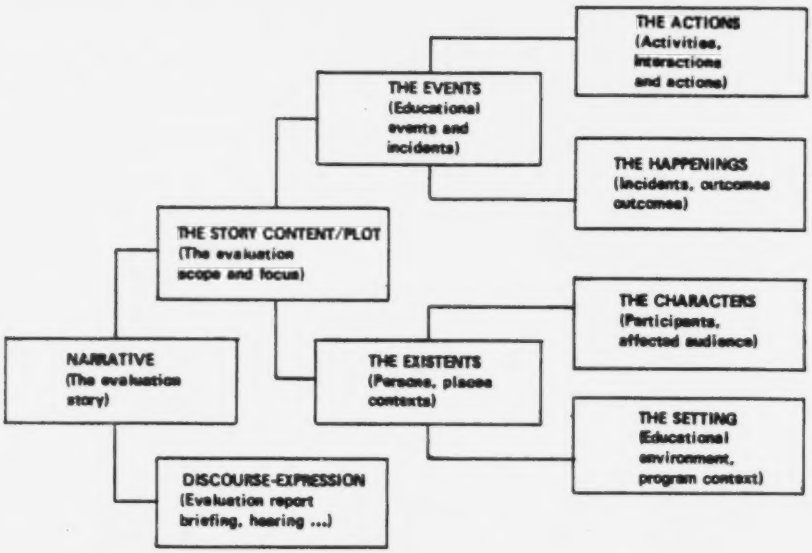

Figure 1

The content of the story consists of events and existents. The events of a story are composed of actions and happenings. Actions refer to the doings of the characters of the story. For the evaluator, they refer to the actions of the program developers, instructors, and students. They include the action of structured activities and the interactions between all of the participants involved. The happenings include the outcomes of the activities, the consequences of actions, incidents, and random events. Actions and happenings lead to changes of state in the story situation. Together, the actions and happenings of a story constitute a plot.

The plot is the way that the storyteller structures the content of the story. A good plot has a solid framework. It is centered around one or more themes, and drives toward a conclusion. It has tight-knit feeling. It has a discernible beginning, middle, and end. It lifts its readers, carries them along, and sets them down in a different place from where they started.

It is important to note that plots are more than events chained together. The plot is the framework that guides the content to be told. That is, events are chosen, delineated, ordered, and described, according to the needs of the plot. Thus, events are as much abstractions of the plot as the plot is the sum of the events it contains.

It is also useful to distinguish between major events and minor events. Major events, called "kernels," are critical to the logic of the story. They are the cornerstones of the plot, are critical to its logic, and determine its direction and flow. Minor events, called "satellites," are not essential to the continuity of the story, but they do add richness and create secondary themes. The descent of St. Nicholas down the chimney in The Night Before Christmas is a kernel event, whereas putting on the kerchiefs and caps before retiring is a satellite event.

Kernels and satellites are important concepts in understanding the hierarchical structure of plot, because they help to determine which narrative events are essential, and which are unnecessary. By deciding to include a particular kernel event at the outset, we are already constraining the structure and direction of the story. In essence, the development of a plot is very much like a decision tree in systems theory; each successive choice of kernels moves the action in a particular direction, elimating many possibilities for the plot, but opening others at the same time. When the evaluator decides to use narrative—the structure of the story—as a framework, then the choice of kernel events determines the contents and emphases of the evaluation. And, like the storyteller, the evaluator can use satellite events to enrich the story.

The existents consist of characters and settings. The characters inhabit the stories. Usually they are so woven into the plot of the story that they are inseparable from their actions. Like events, characters can be kernel or satellite. Characters can also be used to personify themes or convey more general qualities. Zorba the Greek is a good example of a character used to illustrate the dichotomies of emotion and reason, or duty and freedom. For the evaluator, characters may be important only in their roles as students, teachers, administrators. Alternatively, the development of one or two characters more fully may be an effective and artful means of telling the evaluation story.

The setting is the environment in which the story takes place. Setting may play a minor role, or it may be a more integral part of the story, as it is, for example, in Wuthering Heights. It is important to remember that the setting is broadly construed to include the educational, social, and political context in which the story takes place. In this way, stories can be about their setting. The Way It's Spozed to Be is a story about the daily life in a ghetto classroom, and as such it conveys a strong message about the nature of education in the inner city.

The evaluator can use the ideas of storytelling to frame his or her thinking about an evaluation by asking such questions as

What is the plot of this story?

What events are kernel events? Which are satellite events?

Who are the key characters? What about them matters?

What settings need to be included?

What is the beginning, middle, and end of the story?

The Properties of Narrative

Narrative plots are whole, internally consistent, and progressively explicit.

Narrative is whole because it consists of elements that are woven into one fabric. Events and existents form relationships to each other that make for a unified story. Good stories have few loose ends, or irrelevant material. Like good stories, evaluations should have this quality of wholeness in the organization and presentation of the many discrete events included in the study.

Narrative plots are internally consistent in that the facts and events they relate must not physically contradict each other. An event cannot happen both before and after another event. A character cannot be in two places at the same time. True, there is license for ambiguity and paradox, but the listener's credibilty is limited by his/her need for consistency. Evaluators also must tell a story where the parts are consistent with each other and with the whole. This does not mean that ambiguity or contradictions are not legitimate, but they shouldn't create an overall sense of incredibilty.

Narrative plots also flow toward increasing explication. As they unfold, they leave less and less to the reader's imagination. In the beginning there are many possibilities; in the middle the possibilities are few, and some things become probable; at the end it appears that everything that happened was necessary. Similarly, evaluations in their process, and in their reporting, progressively both sharpen their focus and limit the possibilities for inclusion.

Evaluators can use plots to make order and harmony out of a chaos of events. But what plot to use? What is to be included? For both the evaluator and the storyteller the events to be included depend upon the purpose of the plot. Ghost stories, epic poems, romantic novels, and Aesop's Fables all have different ways of ordering and using the basic structural elements. There are differences in the emphasis on kernel and satellite events, in the degree and flow of explicateness, and in the focus on actions, happenings, characters, and setting. These differences are determined by differences in purpose. For the evaluator as well, different purposes require different plots.

EVALUATION AS STORY
AN EXAMPLE

In 1979, a private firm was hired to demonstrate exemplary practice in the implementation of section 504 of P.L. 93-112--a law which mandated equal access, participation, and benefits for handicapped individuals in all federally funded programs. One of the goals of the contract was to provide written guidance to other large urban school districts as to the achievement of cost-effective compliance with the law.

The evaluation team chose to conduct an ongoing case study of the project. The complexity of the study was initially staggering, with multiple layers of administrative and organizational hierarchies, with programs scattered throughout the city, with thousands of teachers and students involved, and with political issues abounding. Faced with a myriad of possibilities to study, the evaluators decided that their best alternative was to create a story about the city's movement toward compliance. By following the template of the storyteller, they would decide what information to include, which elements should be emphasized or downplayed, and where and from whom such information should be collected.

First, the questions of purpose had to be settled. Why were they telling this story? To what end would the story be used? Since this was a demonstration project, their evaluation would be most useful if they could tangibly assist other cities to learn from this experience and adopt the new laws and procedures with increased efficiency and less costs. Thus, they decided to tell this specific story in a way that others could generalize from it.

Next, they had to decide what information to include (what events and happenings to observe? which characters and settings to include? and what were the

kernel events to be?). The answers to these questions resided in the specifics of the law itself. Since the essence of the evaluation was to understand the struggle to comply in a cost-effective and politically acceptable manner, it was clear that the legal compliance on critical points of the law could serve as the foci of the study. Seventeen different subparts of the law were identified as being critical for compliance, and action around these seventeen requirements formed the kernels of the plot of the story they were to tell.

The principle of increasingly-limited choice now came into play. Starting with the seventeen aspects of the law, they progressively sharpened their focus. As kernels of the story coalesced, specific schools and classrooms were studied in more detail. Information that added to the coherence and unity of the story was included; information that was extraneous was kept in a satellite role, or excluded. For example, because it was directly in support of the purpose of the story, information about the modification of school buildings—the extent of the changes that were needed, the costs involved, the personnel needed, the time that it took—was included. On the other hand, detailed information about <u>how</u> these changes were made was excluded as it was judged to be too dependent on the specific site, and thus potentially detracting from the unity and utility of the story.

The story that was written as a final report was certainly not the only one that could have been written. However, it did have the qualities of a good story: wholeness, consistency, and progressive focusing. The plot of the story was consistent with its purpose. Because the story was real, because it chose to portray a few cases in depth, it provided other administrators with an experience from which they could hopefully learn about their own situations.

PART II: THE TECHNIQUES OF THE STORYTELLER

Part I discussed the structure and nature of narrative and illustrated its use as a framework for evaluation. In Part II, some of the specific techniques of the storyteller are discussed in more detail. Such techniques are effective communication devices and are widely adaptable.

The Vignette

A vignette is a scenario--a glimpse of a reality. The description of the train ride is a vignette that illustrates the reality of the conditions during the post-assassination riots. The vignette below illustrates a peer-teaching theme that was observed in a teacher training workshop.

> Three teachers stand in front of a large plexi-glass window. It is part of an exhibit designed to show how perspective works. Carolyn draws aimlessly on the glass with a wax crayon.
>
> Carolyn: I was just trying to figure out how this thing works.
>
> Nina: Let me show you what I did.
>
> Nina shows her how to site an object through the glass and draw its outline on the surface. Then she does the same for an object much closer by.
>
> Nina: There. You see, the large object looks smaller and the small object looks larger.
>
> Richard: Let me show you something else.
>
> Richard draws an object in three dimensions and the other two make comments and ask questions. A pattern emerges where one assumes the role of the teacher and the other plays at being the student. The teacher explains, and the student questions, even challenges. Then someone else proposes an idea, and the roles shift. The teachers are taking turns practicing their explanations and testing their understanding.

Vignettes are difficult both to capture and to write, for in a very short space the storyteller or evaluator wishes to illustrate a theme, feeling, or pervading issue. Good vignettes, like good anecdotes, are specific. They speak of specific people, places, and times. When they are strong, they can stand by themselves, make their own point, and carry their own generalities.

Dialogue

Like a vignette, the use of dialogue captures a slice of life. It is an especially effective way of presenting both sides of an issue that is at the core of understanding the underlying issues or conflicts in a program. The following dialogue comes from the same teacher training workshop, and illustrates a fundamental division between the teachers on what they wanted out of the workshop.

Teacher 1: It's nice to be fired up, but I am suspicious of that. We can all be fired up teachers in August . . . but it's gone by the end of September . . . we go from teaching to coping very quickly. We need more than motivation. We need concrete things to do . . .

Staff: But remember the purpose of this workshop is not to provide you with dittos. You are here for your own enrichment . . .

Teacher 1: I have had enrichment up the wazoo. I have no way to share what I have learned. I am not giving it to the kids. I need ways to share what I have got.

Staff: We are not trying to teach teachers what to do. Rather, our goal is to have teachers enjoy themselves and enrich their own scientific intuition . . . We are focusing on teaching science, intuition, and explanations . . . The ultimate test of this program is how well you are able to answer your students' questions . . .

Teacher 2: I think that this slant toward teaching science is good. I think it will ultimately affect our teaching. I think that after this workshop I will be different in class, more open to talking about related topics and doing demonstrations. I'll be more likely to experiment . . .

Teacher 1: Sure, it's a gas to be a scientist for a while, but the environment is so different here. I wish I could drag you down to my class--to show you what I operate in--to have you face 150 adolescents before lunch--then you would know why I am so insistent on getting concrete teaching ideas . . .

The interview in its raw form is another effective form of dialogue. Playboy magazine has used this device for years in order to illustrate both the character of the person they are interviewing, and to illuminate the topics and issues in the field of the person's expertise.

Quotes

In his book, Writing the Modern Magazine Article, Max Gunther sums up the argument for using quotes:

> A quote serves the same purpose as an anecdote, and does so only slightly less strongly. It is a way of backing up general statements, a way of putting sparkle into what otherwise might be dull material . . . it is a way of making the generalization stronger and more believable than if you said it in your own words. By hanging it on a named individual, you give it a sharper and more specific sound.

The logic of using quotes is the same as that of the vignette or dialogue. Letting specific people use their own words brings the reader closer to the experience; using quotes is more direct and powerful than the one-step-removed summary by the narrator.

Quotes can be extracted from interview transcripts and used to display the range of opinions and perceptions felt by the participants in a program. Not only are the various positions made clear this way, but the quotes can also illuminate how other issues are inextricably linked together.

Portrayal Over Time

The narrative form is particularly effective at describing how things change over time, and it is effective in using the passing of time to give different snapshots of reality. A journal format is one device of describing the day-to-day nature of a program. Similarly, "A Day in the Life of" format can be used to focus in on the daily reality faced by key participants of a program.

Writing Style

Style, of course, is individual, but storytellers (the writers of books, articles, and scripts) as a group are way ahead of evaluators in being able to grab and hold the attention of their audiences. The art and technique of good writing is well beyond what can be discussed here. Nevertheless, a few very simple guidelines from Max Gunther are presented here.

Effective writing should have:

1. Clarity. This simply means that what you write should be easily understood. For evaluators especially, this means that ambiguity should be avoided. Technical terms should be kept to a

minimum. Ideas should not be so nested that it takes great effort by the reader to unravel them. Common, simple language may be far more effective than academic jargon.

2. Force. Force is the technique of saying things strongly, crisply, sharply. Writing that is forceful carries and awakens the reader.

3. Flavor. Flavor is the style and color of the writing. Flavor is what keeps writing from being flat and mushy.

Some examples:

"Everyone was sad" is clear, but has no force or flavor.

"For now is the time for your tears!" has flavor and some force, but is not by itself clear.

"Pigeons on the grass, alas" (a favorite phrase of Gertrude Stein) has flavor, but little force, and no clarity.

Leads, Transitions, and Endings

A good lead is critical, both for the writer and the reader. A good lead hooks the reader. It also points the direction to go. For the writer, a good lead breaks the ice, commits him to a flow, and establishes the nature of what is to follow. Writing a good lead forces the writer to know what the story is about, what the focus is, what is to be proved, and what conclusions are to be drawn. Good leads can consist of anecdotes, quotes, statements, questions, or, if one is very skilled, a poetic description.

Good transitions are noticeable in their absence. Transitions link two unlike parts of the story. Storytellers use anecdotes, quotes, questions and answers, abrupt jumps, and phrase "echos" to make their leaps. Evaluators often don't worry about transitions because they don't worry about continuity, flow, and harmony. Again, this is a topic which is beyond the scope of discussion here, but also one where evaluators could greatly profit from studying the skills of good narrative writers.

Endings need only be satisfying. This is difficult to define, but easy to recognize. Conversely, a poor or absent ending will leave the reader in the lurch, dissatisfied, not quite complete. Quotes and anecdotes can be used to summarize. A prose or poetic ending is difficult but effective when done well. An ending can also echo the beginning.

A summary, or statement ending, probably the type most used by evaluators, needs great care. It goes flat very easily. Summary endings are best when they express only one thought, when they do not attempt to tie up all loose ends, and when they are very brief.

REFERENCES

Gunther, Max (1973). Writing the modern magazine article. Boston, MA: Writer, Inc.

Wachtman, E. L. (1982). Storytelling, the narrative structure of evaluation. In N. L. Smith (Ed.), Communication strategies in evaluation. Beverly Hills, CA: Sage Publications.

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